

**REMARKS**

Claims 26-52 are pending and under consideration.

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

**I. Rejection under 35 U.S.C. § 103**

In the Office Action, claims 26, 35-36, 40, 43-44, 46, and 52 were rejected under 35 USC § 103(a) as being unpatentable over "Fraccaroli" (U.S. Patent No. 6,549,768) in view of "Heinonen" (U.S. Patent No. 7,249,182).

This rejection is respectfully traversed.

Claim 26, for example, recites:

assigning each user a specific profile containing data about said user and at least one constraint;

performing a direct data interchange between at least two users as soon as they are in a specified communication zone; and

clustering users within the same communication zone, based on the data and constraints of their profiles.

As such, claim 26 is related to an ad-hoc network in which users within a common communication zone are clustered together based on a direct exchange of data between the users, wherein the direct data exchange includes a specific profile containing data about the user and at least one constraint.

The Examiner acknowledges that Fraccaroli does not disclose an ad-hoc network in which users are directly connected and attempts to make up for this deficiency in Fraccaroli with Heinonen. More specifically, the Examiner takes the position that: (a) Heinonen discloses formation of localized ad-hoc networks between users according to user profiles and interests; and (b) it would have been obvious to modify the method of Fraccaroli to comprise direct connection between users, as disclosed in Heinonen, to enhance the efficient operation of the invention. It is respectfully submitted that both positions (a) and (b) are incorrect.

With respect to (a) and the Examiner's position that Heinonen discloses formation of localized ad-hoc networks between users according to user profiles and interests, it is noted that the Examiner himself has indicated a significant distinction between Heinonen and the method of claim 26, for example. Heinonen is concerned with the formation of an ad-hoc network, while the method of claim 26 is provided for clustering users in an already formed ad-hoc network

based on the data and constraints of the user profiles. Heinonen discloses how a connection is set up between two wireless Bluetooth devices with the use of a special type of link called an asynchronous connection-less link. This is a prerequisite for setting up an ad-hoc network based on Bluetooth technology. However, this procedure will fail with other wireless technologies. Furthermore, the "matching IAC" disclosed in Heinonen is not related to a match of profiles, but instead is merely provided for deciding whether or not a connection will be set up. Thus, the profiles disclosed in Heinonen are merely used to match a received IAC and, therefore, do not correspond to the claimed profiles containing data about a user and at least one constraint. As such, Heinonen does not disclose formation of localized ad-hoc networks between users according to user profiles and interests, as indicated by the Examiner. Therefore, even if the method of Fraccaroli was modified by the teachings of Heinonen, the method of claim 26 would not result.

With respect to (b) and the Examiner's position it would have been obvious to modify the method of Fraccaroli to comprise direct connection between users, as disclosed in Heinonen, to enhance the efficient operation of the invention, it is submitted that the Examiner's motivation for combining the references is improper. To begin with, it is noted that a motivation "to enhance the efficient operation of the invention" is vague and lacking any specific reference to a teaching within either Fraccaroli or Heinonen.

Furthermore, it is respectfully submitted that there is no motivation to combine the references as the Examiner has indicated. MPEP section 2143.01 clearly states that if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification (see *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). A person of ordinary skill in the art would clearly appreciate that the Examiner's proposed modification would render the apparatus and method disclosed in Fraccaroli unsatisfactory for its intended purpose. The apparatus and method of Fraccaroli is directed to a basic cellular-type network in which communication between users is not direct, but instead is processed through a series of base stations, base station controllers, home location registers, visitor location registers, etc. More specifically, as illustrated in Fig. 1 and described in col. 5, lines 26-37 of Fraccaroli, the matching of user IDs is carried out through the use of a home location register HLR 105 that is connected to a server 106 having a centralized matching engine 107. As such, the matching or "clustering" of Fraccaroli is not performed based on direct communication or data exchange between the users. However, the method disclosed in Heinonen, as relied on by the Examiner, provides for direct communication between Bluetooth devices attempting to establish an asynchronous

connection-less link. Therefore, if the apparatus and method of Fraccaroli was modified with the direct communication between Bluetooth devices disclosed in Heinonen, the network structure of Fraccaroli would not be able to process profile matches through a centralized matching engine, thus rendering the apparatus and method of Fraccaroli unsatisfactory for its intended purpose of performing profile matching through a series of centralized stations with a centralized matching engine/algorithm.

Also, MPEP section 2143.01 clearly states that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious (see *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). A person of ordinary skill in the art would clearly appreciate that the Examiner's proposed modification would change the principle of operation of the apparatus and method disclosed in Fraccaroli. The apparatus and method disclosed in Fraccaroli is provided for matching users within a network by storing profiles for each user in a server of a centralized home locator register (HLR). The server includes a matching engine that implements a matching algorithm for matching users that have sent a profile to the centralized HLR. However, the method disclosed in Heinonen, as relied on by the Examiner, provides for direct communication between Bluetooth devices attempting to establish an asynchronous connection-less link. Therefore, if the apparatus and method of Fraccaroli was modified with the direct communication between Bluetooth devices disclosed in Heinonen, the network structure of Fraccaroli would not be able to process profile matches through a centralized matching engine, thus rendering the HLRs, VLRS, and other centralized units in the network of Fraccaroli unnecessary, thereby changing the principle of operation of the apparatus and method of Fraccaroli.

Since Fraccaroli and Heinonen, alone or in combination, do not discuss or suggest all of the features of claim 26, and because there is no motivation to combine the references as suggested by the Examiner, claim 26 patentably distinguishes over Fraccaroli and Heinonen. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 35-36 and 40 depend either directly or indirectly from claim 26, and include all the features of claim 26, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 35-36 and 40 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

Claim 43, for example, recites:

wherein each user is assigned a specific profile containing profile data and at least one constraint, data exchange taking place directly between at least two users as soon as they are in a specified communication zone in order to find users with profiles of a specified content, taking the constraints into account, in the specified communication zone.

For reasons similar to those discussed above, Fraccaroli and Heinonen, alone or in combination, do not discuss or suggest all of the features of claim 43, and there is no motivation to combine the references as suggested by the Examiner, so that claim 43 patentably distinguishes over Fraccaroli and Heinonen. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Claims 44 and 46 depend either directly or indirectly from claim 43, and include all the features of claim 43, plus additional features that are not discussed or suggested by the references relied upon. Therefore, claims 44 and 46 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

Claim 52, for example, recites:

assigning each user a specific profile containing data about said user and at least one constraint;  
performing a direct data interchange between at least two users as soon as they are in a specified communication zone;  
clustering users within the same communication zone, based on the data and constraints of their profiles; and  
assigning each user a specific profile containing data about said user and at least one constraint.

For reasons similar to those discussed above, Fraccaroli and Heinonen, alone or in combination, do not discuss or suggest all of the features of claim 52, and there is no motivation to combine the references as suggested by the Examiner, so that claim 52 patentably distinguishes over Fraccaroli and Heinonen. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

In the Office Action, claim 51 was rejected under 35 USC § 103(a) as being unpatentable over "Chang" (U.S. Patent Pub. No. 2002/0168938) in view of Heinonen.

This rejection is respectfully traversed.

Claim 51, for example, recites:

specifying attributes of desirable users, the attributes being specified at an initiator mobile terminal in an ad hoc communication network;

searching, by the initiator mobile terminal, for users having the attributes specified by the initiator user by performing a direct data interchange between the initiator mobile terminal and each of a plurality of users in the mobile network;

clustering together users having the attributes specified by the initiator user, to thereby form a user cluster; and

providing the users of the user cluster with information regarding other users within the same cluster.

For reasons similar to those discussed above, Chang and Heinonen, alone or in combination, do not discuss or suggest all of the features of claim 52, and there is no motivation to combine the references as suggested by the Examiner, so that claim 52 patentably distinguishes over Chang and Heinonen. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

In the Office Action, claims 27-30, 32-34, 37-39, 41-42, 45, and 47-50 were rejected under 35 USC § 103(a) as being unpatentable over Fraccaroli in view of Heinonen and Chang.

Each of these dependent claims depend from one of the independent claims discussed above, so that claims 27-30, 32-34, 37-39, 41-42, 45, and 47-50 each patentably distinguishes over Fraccaroli in view of Heinonen and Chang. Accordingly, withdrawal of these § 103(a) rejections is respectfully requested.

In the Office Action, claim 31 was rejected under 35 USC § 103(a) as being unpatentable over Fraccaroli in view of Heinonen and Chang and further in view of Twitchell (U.S. Patent Pub. No. 2002/0119770).

Twitchell fails to make up for the deficiency in Fraccaroli in view of Heinonen and Chang, so that claim 31 patentably distinguishes over Fraccaroli in view of Heinonen and Chang and Twitchell. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

## **CONCLUSION**

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

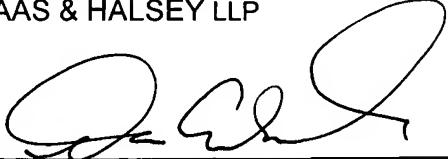
Serial No. 10/569,493

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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